Pressure Tube Kit

Cancels: IIK 340M-40-18 IIK 340M-40-35
4-97

Installation Instructions
Part No. 311166-754

NOTE: Read the entire instruction manual before starting the installation.

This symbol → indicates a change since the last issue.

SAFETY CONSIDERATIONS

Installing and servicing of heating equipment can be hazardous due to gas and electrical components. Only trained personnel should install or service heating equipment.

Untrained personnel can perform basic maintenance functions such as cleaning coils or cleaning and replacing filters. All other operations should be performed by trained service personnel. When working on heating equipment, observe precautions in the literature, on tags, and on labels attached to the unit.

Follow all safety codes. Wear safety glasses and work gloves. Have a fire extinguisher available.

Recognize safety information. This is the safety-alert symbol ⚠ . When you see this symbol on the furnace and in instructions or manuals, be alert to the potential for personal injury.

Understand the signal words DANGER, WARNING, and CAUTION. These words are used with the safety-alert symbol. DANGER identifies the most serious hazards which **will** result in severe personal injury or death. WARNING signifies a hazard which **could** result in personal injury or death. CAUTION is used to identify unsafe practices which **would** result in minor personal injury or product and property damage.

⚠ WARNING

Before beginning any installation or modification, be sure the main electrical disconnect switch is in the OFF position. Failure to follow this warning could result in personal injury or death.

⚠ CAUTION

Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation.

INTRODUCTION

This instruction manual covers installation of the pressure tube kit Part No. 311166-754 in all gas-fired condensing furnaces.

DESCRIPTION AND USAGE

This pressure tube kit is designed for use when replacement of the factory-installed tubing is required.

→ This kit is for use with models 320AAZ, 321AAZ, 340MAV, 345MAV, 350MAV, 355MAV, 398AAV, 398AAZ, 398BAZ, 399AAZ, 490AAV, 58DX, 58DXA, 58DXC, 58MCA, 58MSA, 58MVP, 58MXA, 58SX, 58SXA, 58SXB, 58SXC, 58VCA, 58VUA, and PG9MAA Gas-Fired Condensing Furnaces.

This pressure tube kit contains the following items:

Tubing (1 length to be cut to size)	1
Plastic tee	3
Clamps	18
Installation Instructions	1

INSTALLATION

1. Turn off gas and electrical supplies to unit.
2. Remove furnace door.
3. Cut tubing to proper length as required. Refer to appropriate figure for required tubing lengths as shown in Table 1.
4. Install clamps (provided in kit) on ends of new tubes.

NOTE: Pressure tubing in units may be routed slightly different than what is shown in diagrams. Where possible, refer to tubing label on unit.

5. Replace all tubing called out in proper figures.

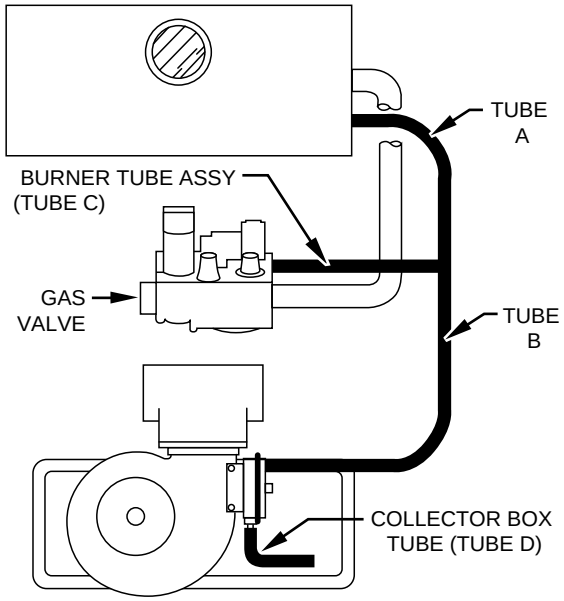
NOTE: Remove and replace 1 tube at a time. Ensure tubing is routed in same manner as original pressure tubing.

6. Place pressure tube assembly behind casing clips—ensure tubes are not kinked or pinched.
7. Check pressure tubes to ensure connections are completed and secure.
8. Turn on gas and electrical supplies to unit.
9. Check furnace for proper operation through 2 complete cycles.
10. Reinstall furnace door.

Manufacturer reserves the right to discontinue, or change at any time, specifications or designs without notice and without incurring obligations.

→ Table 1—Reference Figure Usage

MODEL NUMBER	SERIES	REFERENCE FIGURE
320AAZ	All	4
321AAZ	All	5
340MAV	A	6
	B C D (prior to 2496A02149)	7
	D (2496A02149 and later)	8
345MAV	All	8
350MAV	A	6
	B C D (prior to 2496A02149)	7
	D (2496A02149 and later)	8
355MAV	All	9
398AAV	All	1
398AAZ	All	1
398BAZ	All	3
399AAZ	All	2
490AAV	A	6
	B C D (prior to 2496A02149)	7
	D (2496A02149 and later)	8
58DX	All	2
58DXA	All	2
58DXC	All	2
58MCA	100	6
	111 121 131 (prior to 2496A02149)	7
	131 (2496A02149 and later)	8
58MSA	All	8
58MVP	All	9
58MXA	100	6
	111 121 131 (prior to 2496A02149)	7
	131 (2496A02149 and later)	8
58SX	All	1
58SXA	All	1
58SXB	All	3
58SXC	All	1
58VCA	All	5
58VUA	All	4
PG9MAA	All	8



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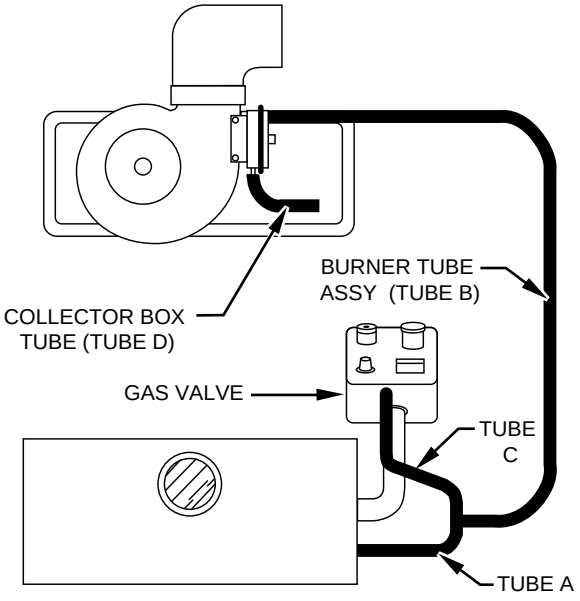
Maximum Pressure Tube Length*

UNIT SIZE	TUBE LENGTH (IN.)			
	A	B	C	D
040 & 060	11	13	9	9
080	11	13	7-1/2	9
100	11	15	7-1/2	9
120	11	16	7-1/2	9

* Shorter lengths may be required to avoid kinking tubing. This will depend upon the gas valve and pressure switch used. Refer to existing tubing lengths, if possible.

Fig. 1—Pressure Tube Connection Diagram for Models 398AAV, 398AAZ, 58SX, 58SXA, and 58SXC Furnaces



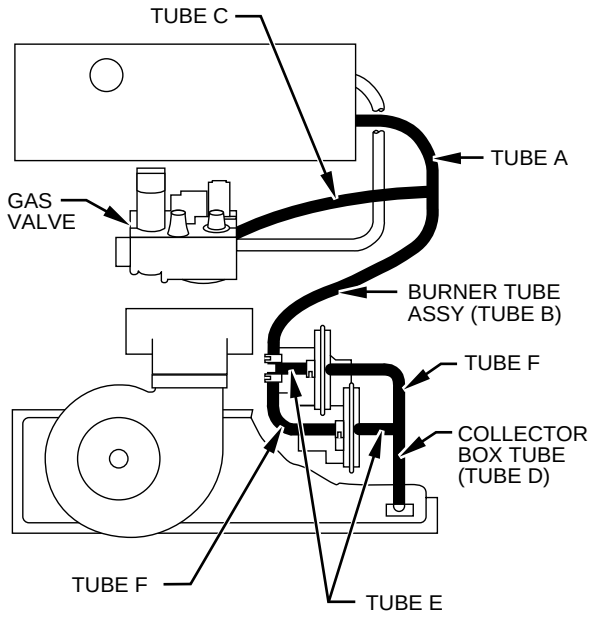
A92079

Maximum Pressure Tube Length*

UNIT SIZE	TUBE LENGTH (IN.)			
	A	B	C	D
All	6	26	6	6

* Shorter lengths may be required to avoid kinking tubing. This will depend upon the gas valve and pressure switch used. Refer to existing tubing lengths, if possible.

Fig. 2—Pressure Tube Connection Diagram for Models 399AAZ, 58DX, 58DXA, and 58DXC Furnaces



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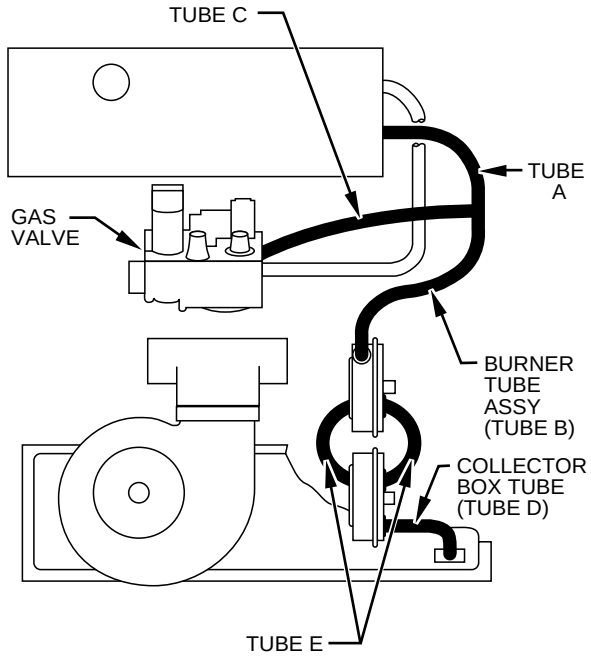
Maximum Pressure Tube Length*

UNIT SIZE	TUBE LENGTH (IN.)					
	A	B	C	D	E	F
All	5	12	9	3-1/2	1-3/8	4-1/2

* Shorter lengths may be required to avoid kinking tubing. This will depend upon the gas valve and pressure switch used. Refer to existing tubing lengths, if possible.

Fig. 3—Pressure Tube Connection Diagram for Models 398BAZ and 58SXB Furnaces



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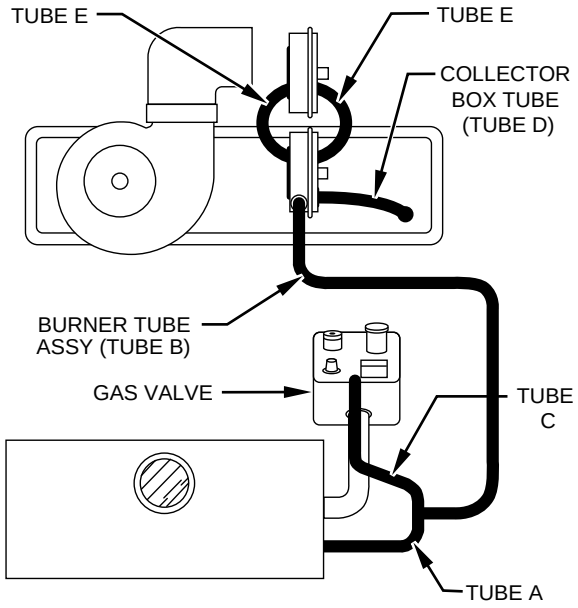
Maximum Pressure Tube Length*

UNIT SIZE	TUBE LENGTH (IN.)				
	A	B	C	D	E
All	5	12	9	5	4

* Shorter lengths may be required to avoid kinking tubing. This will depend upon the gas valve and pressure switch used. Refer to existing tubing lengths, if possible.

Fig. 4—Pressure Tube Connection Diagram for Models 320AAZ and 58VUA Furnaces



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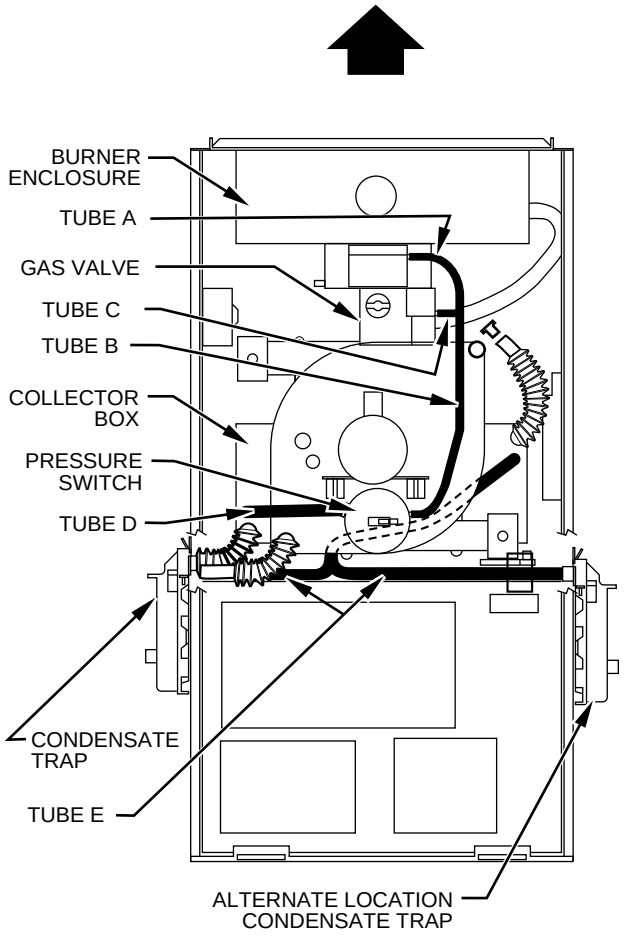
Maximum Pressure Tube Length*

UNIT SIZE	TUBE LENGTH (IN.)				
	A	B	C	D	E
All	6	26	6	4	4

* Shorter lengths may be required to avoid kinking tubing. This will depend upon the gas valve and pressure switch used. Refer to existing tubing lengths, if possible.

Fig. 5—Pressure Tube Connection Diagram for Models 321AAZ and 58VCA Furnaces



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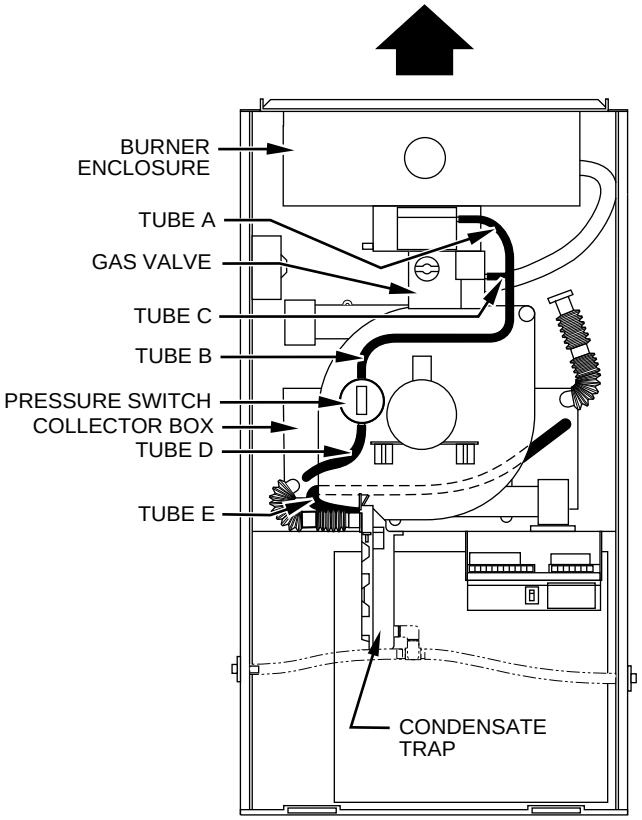
Maximum Pressure Tube Length*

UNIT SIZE	TUBE LENGTH (IN.)				
	A	B	C	D	E†
040	8	13	2	8-3/4	18-1/2
060	8	13	2	8-3/4	18-1/2
080	8	13	2	8-3/4	20-1/2
100	8	13	2	8-3/4	20-1/2
120	8	13	2	8-3/4	20-1/2

* Shorter lengths may be required to avoid kinking tubing. This will depend upon the gas valve and pressure switch used. Refer to existing tubing lengths, if possible.
† Length will vary depending on location of furnace condensate trap.

Fig. 6—Pressure Tube Connection Diagram for Series A Models of 340MAV, 350MAV, and 490AAV and Series 100 Models of 58MCA and 58MXA 40-in. Tall Multipoise Furnaces (Upflow Orientation Shown)



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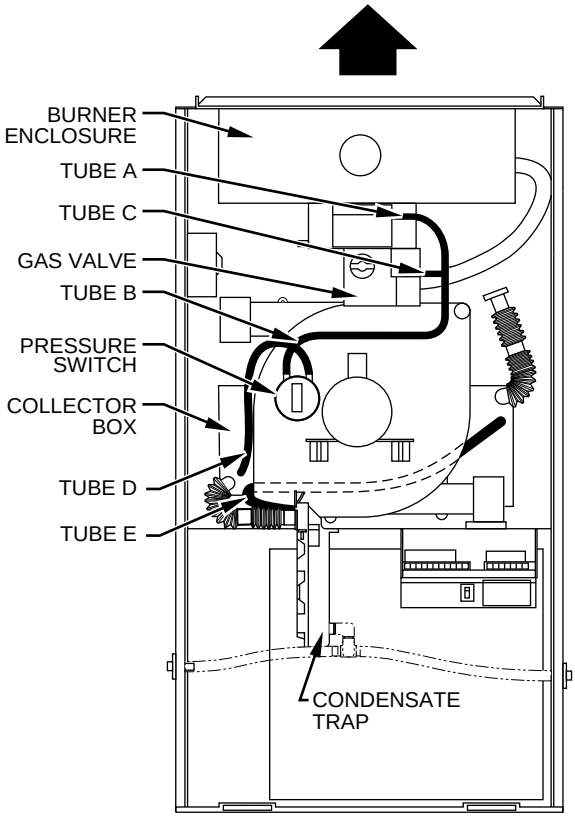
Maximum Pressure Tube Length*

UNIT SIZE	TUBE LENGTH (IN.)				
	A	B	C	D	E†
040	5	10	1-1/2	9-1/4	24
060	5	10	1-1/2	9-1/4	24
080	6	11-1/2	1-1/2	9-1/4	24
100	6	11-1/2	1-1/2	9-1/4	24
120	8	13-1/2	1-1/2	9-1/4	24

* Shorter lengths may be required to avoid kinking tubing. This will depend upon the gas valve and pressure switch used. Refer to existing tubing lengths, if possible.
† Length will vary depending on location of furnace condensate trap.

Fig. 7—Pressure Tube Connection Diagram for Series B, C, and D (prior to 2496A02149) Models of 340MAV, 350MAV, and 490AAV and Series 111, 121, and 131 (prior to 2496A02149) Models of 58MCA and 58MXA 40-in. Tall Multipoise Furnaces (Upflow Orientation Shown)



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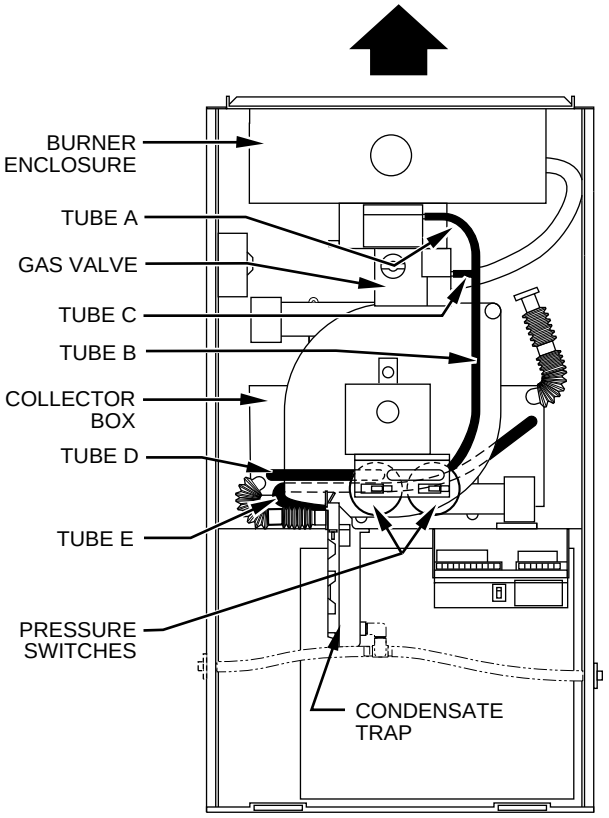
Maximum Pressure Tube Length*

UNIT SIZE	TUBE LENGTH (IN.)				
	A	B	C	D	E†
040	5	10	1-1/2	15-1/4	24
060	5	10	1-1/2	15-1/4	24
080	6	11-1/2	1-1/2	15-1/4	24
100	6	11-1/2	1-1/2	15-1/4	24
120	8	13-1/2	1-1/2	15-1/4	24
140	8	13-1/2	1-1/2	15-1/4	24

* Shorter lengths may be required to avoid kinking tubing. This will depend upon the gas valve and pressure switch used. Refer to existing tubing lengths, if possible.
† Length will vary depending on location of furnace condensate trap.

→ **Fig. 8—Pressure Tube Connection Diagram for Series D (2496A02149 and later) Models of 340MAV, 350MAV, and 490AAV; Series 131 (2496A02149 and later) Models of 58MCA and 58MXA; Model 345MAV; Model 58MSA; and Model PG9MAA 40-in. Tall Multipoise Furnaces (Upflow Orientation Shown)**



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Maximum Pressure Tube Length*

UNIT SIZE	TUBE LENGTH (IN.)				
	A	B	C	D	E†
040	6	13-1/2	1-1/2	10-1/2	24
060	6	13-1/2	1-1/2	10-1/2	24
080	6	13-1/2	1-1/2	10-1/2	24
100	6	13-1/2	1-1/2	10-1/2	24
120	8	13-1/2	1-1/2	10-1/2	24

* Shorter lengths may be required to avoid kinking tubing. This will depend upon the gas valve and pressure switch used. Refer to existing tubing lengths, if possible.
† Length will vary depending on location of furnace condensate trap.

Fig. 9—Pressure Tube Connection Diagram for Models 355MAV and 58MVP 40-in. Tall Multipoise Furnaces (Upflow Orientation Shown)

SERVICE TRAINING

Packaged Service Training programs are an excellent way to increase your knowledge of the equipment discussed in this manual, including:

- Unit Familiarization
- Maintenance
- Installation Overview
- Operating Sequence

A large selection of product, theory, and skills programs is available, using popular video-based formats and materials. All include video and/or slides, plus companion book.

Classroom Service Training plus "hands-on" the products in our labs can mean increased confidence that really pays dividends in faster troubleshooting, fewer callbacks. Course descriptions and schedules are in our catalog.

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